PROCESS FOR PREPARING HYDROFLUOROETHERS

ABSTRACT

Process for obtaining hydrofluoroethers of formula (I):

more oxygen atoms;

$$A - (R_f)_{n0} - CF(R_{f1}) - O - R_h$$
 (I)

wherein: n0 is zero or 1; R_f is a bivalent radical: $C_1\text{-}C_{20}$ (per)fluoroalkylene, optionally containing one or

-CFW'O- $(R_{\rm f2})$ -CFW-, wherein W and W', equal or different, are F, CF $_3$; $R_{\rm f2}$ is a (per)fluoropolyoxyalkylene;

 R_{f1} is F or a C_1 - C_{10} (per)fluoroalkyl or (per)fluorooxyalkyl radical;

 R_h is a C_1 - C_{20} linear, branched, saturated or unsaturated alkyl, or C_7 - C_{20} alkylaryl,

A = F, $(R_{h2}O)$ -CF (R_{f4}) -, -C(O)F, wherein R_{h2} , equal to or different from R_h , has the R_h meanings and R_{f4} , equal to or different from R_{f1} , has the R_{f1} meanings;

wherein a mono- or bifunctional carbonyl compound of formula (IV):

$$B-R_f-C(O)R_{f1} \qquad (IV)$$

B being F or $-C(0)R_{f4}$, R_f , R_{f1} and R_{f4} being as above, is reacted with at least one equivalent of a fluoroformate of formula (III) :

$$R-OC(O)F$$
 (III)

wherein $R=R_h$ or R_{h2} as above defined; in the presence of an ion fluoride compound (catalyst) and of a dipolar aprotic organic compound, liquid and inert under the reaction conditions.